

IN THE SPECIFICATION:

On page 29 to 30, please amend the paragraph beginning on page 29, line 21 and ending on page 30, line 8 as follows:

When non-destructive reading operation  $B_4$  is complete, an image processing circuit 111 calculates  $OUT(B_4) - OUT(B_0)$  by using the charge amounts obtained by non-destructive reading operations  $B_0$  and  $B_4$ , and outputs the resultant value. This calculation is performed for all pixels. The image processing circuit 111 displays the image sensed by using the obtained output on a monitor 112 or stores it as image data in a recording medium 113. As the X-ray image sensing panel 120, a panel having pixel portions arranged two-dimensionally is used. However, a panel having pixel portions arranged one-dimensionally may be used. In this embodiment, the image processing circuit calculates  $OUT(B_4) - OUT(B_0)$ . However, the X-ray image sensing panel may incorporate ~~incorporates~~ a difference circuit.

On page 30, please amend the paragraph beginning on line 9 and ending on line 14 as follows:

In the first embodiment, since  $OUT(A_1) - OUT(A_0) = \text{output}$ ,  $OUT(A_1) - OUT(B_0)$  and  $OUT(A_0)$  contain different KTC noise components. Even if, therefore,  $OUT(A_1) - OUT(B_0)$  is subtracted from  $OUT(A_0)$ ,  $KTC(A_0)$  contained in  $OUT(A_0)$  does not cancel out  $KTC(A_1) - KTC(B_0)$  contained in  $OUT(A_1) - OUT(B_0)$ . Since KTC noise is random noise,  $\sqrt{2} \times KTC$  noise remains.

On page 30, please amend the paragraph beginning on line 15 and ending on line 23 as follows:

In the second embodiment,  $\text{OUT}(B_0)$  and  $\text{OUT}(B_4) - \text{OUT}(A_1)$  of output =  $\text{OUT}(B_4) - \text{OUT}(A_1) - \text{OUT}(B_0)$  contain the same amount of KTC noise produced by normal reading operation  $A_0$ . If, therefore,  $\text{OUT}(B_0)$  is subtracted from  $\text{OUT}(B_4) - \text{OUT}(A_1)$ , the KTC noise contained in  $\text{OUT}(B_0)$  cancel out the KTC noise contained in  $\text{OUT}(B_4) - \text{OUT}(A_1)$ . Hence, an output free from the influence of KTC noise can be obtained. This is because no normal reading operation is performed between non-destructive reading operations  $B_0$  and  $A_1$   $B_4$ .

On pages 30 to 31, please amend the paragraph beginning on page 30, line 24 and ending on page 31, line 9 as follows:

In addition, even if output =  $\text{OUT}(B_4) - \text{OUT}(A_1) - \text{OUT}(A_1) - \text{OUT}(B_0)$  is calculated by using  $\text{OUT}(A_1) - \text{OUT}(B_0)$  obtained by normal reading operation instead of the output obtained by non-destructive reading operation  $B_4$ , an output free from the influence of KTC noise can be obtained. This is because  $\text{OUT}(A_1) - \text{OUT}(B_0)$  also contains the KTC noise produced by normal reading operation  $A_0$ . That is, an excellent radiation image sensing output containing no KTC noise can be obtained by subtracting the non-destructive reading output obtained by the image sensing means before radiation emission from the output obtained by the images sensing means obtained after radiation emission.